VESSEL-FEEDING PULMONARY NODULE DETECTION BY VOLUME PROJECTION ANALYSIS

ABSTRACT

5 A system and method for automatically detecting nodules from images include a seed point generation unit for generating a seed point from a plurality of images that define a volume, a volume of interest generation unit for defining a volume of interest comprising the seed point and optionally smoothing the volume of interest with a set of pre-selected scales, a volume projection unit for

10 choosing principal viewing axes within the volume of interest, re-slicing the volume of interest along one of the principal viewing axes and computing volume projection curves of the re-sliced volumes along the principal viewing axes, and a volume projection analysis unit for analyzing the shapes of the volume projection curves, and detecting a nodule in accordance with the analyzed shapes.